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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,413

03/16/2004

Nobuharu Nagaoka

SIP-125-A

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EXAMINER

WANG, CLAIRE X

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

05/03/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/801,413	Applicant(s) NAGAOKA ET AL.	
	Examiner Claire Wang	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagaoka et al. (US 2003/0138133 hereinafter "Nagaoka").

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Nagaoka teaches a device for monitoring around a vehicle capable of detecting objects present around said vehicle based on an image captured by at least one infrared camera member provided with said vehicle (Paragraph [0015], lines 4-5),

said device comprising a pedestrian's head area calculating unit which establishes an area which is supposed to correspond to a head of said pedestrian as a reference area ([0019], lines 3-5); a pedestrian's over-shoulder area calculating unit which establishes two object areas which are supposed to correspond to over-shoulder areas of said pedestrian on both sides of said reference area (Fig. 15 shows a center line starting with P1 that cuts the figure in half, the areas within area1 is divided by the center line; the two sections read on the over-shoulder area); and a pedestrian's shape acknowledging unit which acknowledges said pedestrian who is in said captured image according to a feature in a luminance in said reference areas and a feature in a luminance in said object areas ([0123]).

As to claim 4, it differs from claim 1 in that claim 4 further teaches a display device which displays an object which is acknowledged as a pedestrian by the pedestrian's shape acknowledging unit distinguishably from an object which is not acknowledged as a pedestrian ([0053], lines 2-5).

As to claim 5, it differs from claim 4 in that claim 5 further teaches an alarm determination device which determines whether or not an alarm should be generated based on the object which is acknowledged as a pedestrian by the pedestrian's shape acknowledging unit ([0053], lines 1-2).

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As to claim 2, Nagaoka teaches wherein said object areas are offset upwardly from said reference area (Fig. 15).

As to claims 6 and 10, they are the same as claim 2. Please see above for detail analysis.

As to claim 3, Nagaoka teaches a pedestrian's shoulder area calculating unit which establishes other object area for acknowledging said pedestrian's arms and shoulders downwardly to said object areas respectively (Fig. 16A) wherein said pedestrian's shape acknowledging unit acknowledges said pedestrian in said captured image according to a feature in a luminance in said object areas and said other object areas ([0123]).

As to claims 7 and 11, they are the same as claim 3. Please see above for detail analysis.

As to claim 8, Nagaoka teaches wherein said display device displays the object, which is acknowledged as a pedestrian by the pedestrian's shape acknowledging unit, distinguishably in an emphasized manner (S3 Fig. 3).

As to claim 12, it is the same as claim 8. Please see above for detail analysis.

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As to claim 9, Nagaoka teaches wherein said a feature in said luminance is specified according to at least one of an average luminance, a luminance contrast, a relativity error value between said object areas and said other object areas ([0186], lines 8-11).

As to claims 13 and 14, they are the same as claim 9. Please see above for detail analysis.

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3. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujimura et al. (US 2006/0177097 hereinafter "Fujimura").

As to claim 1, Fujimura teaches a device for monitoring around a vehicle capable of detecting objects present around said vehicle based on an image captured by at least one infrared camera member (infrared video source that captures an infrared image; Paragraph [0010], lines 5-7) provided with said vehicle, said device comprising a pedestrian's head area calculating unit which establishes an area which is supposed to correspond to a head of said pedestrian as a reference area (candidate detection module that finds a cluster of pixels that represents a human head; [0055], lines 1-5); a pedestrian's over-shoulder area calculating unit which establishes two object areas which are supposed to correspond to over-shoulder areas of said pedestrian on both sides of said reference area (body-ground candidates are a group of pixel clusters that can represent human hands or other detected body parts; [0056], lines 5-7); and a pedestrian's shape acknowledging unit which acknowledges said pedestrian who is in said captured image according to a feature in a luminance in said reference areas and a feature in a luminance in said object areas (the candidate detection module determines if the clip is a body-ground type and if so, then the hotspot is a candidate for verification; [0056], lines 9-13).

As to claim 4, it differs from claim 1 in that claim 4 further teaches a display device which displays an object which is acknowledged as a pedestrian by the

pedestrian's shape acknowledging unit distinguishably from an object which is not acknowledged as a pedestrian (Fujimura teaches an output display module interleaves detection frames and tracking frames in generating output video for the display; [0010], lines 12-14).

As to claim 5, it differs from claim 4 in that claim 5 further teaches an alarm determination device which determines whether or not an alarm should be generated based on the object which is acknowledged as a pedestrian by the pedestrian's shape acknowledging unit (Fujimura teaches a system including an audio warning module for generating a warning sound in response to a pedestrian's proximity to the vehicle; [0010], lines 14-17).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsuji et al. (US 6,327,536) teaches a vehicle environment monitoring system.

Imagawa et al. (US 6,961,466) teaches a method for object recognition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Claire Wang whose telephone number is 571-270-1051. The examiner can normally be reached on Mid-day flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Claire Wang
04/20/2007



JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINEE